NIEM
BRIDGING INFORMATION SYSTEMS

10 Key Points about the National Information Exchange Model (NIEM)

The National Information Exchange Model is a partnership between the U.S. Department of Justice and the U.S. Department of Homeland Security

For more information, please visit **http://www.NIEM.gov.**

1. **NIEM supports cross-domain information exchanges as well as intra-domain exchanges.**
While NIEM provides reusable components and Information Exchange Package Documentation (IEPD) for exchanges across NIEM domains, it also supports intra-domain exchanges where a given domain, such as Justice, is comprised of multiple subcommunities (e.g., investigation, courts, and corrections). Regardless of the domain(s) that information components are defined in, information exchanges take place between individuals, organizations, systems, and databases. NIEM supports those exchanges to help them bridge domain and organizational boundaries.

2. **NIEM provides a common set of reusable components which are collaboratively managed with stakeholders under the NIEM governance process and architectural framework.**
The NIEM architecture allows information to be modeled using components within NIEM and from external standards, with both types of components being usable side by side. Creating new components in NIEM or migrating them from an existing standard to produce NIEM components facilitates cross-domain interoperability, while the ability to leverage components from external standards allows NIEM stakeholders to protect their existing investments.

3. **Information Exchange Package Documentation (IEPD) is central to many NIEM processes.**
The primary concern of NIEM is to model information exchanges, and the IEPD is the mechanism for describing these exchanges. An IEPD includes a set of NIEM-conforming schemas that use or correctly extend NIEM components to define a class of Extensible Markup Language (XML) exchange instances. It includes documentation that describes how to use the Information Exchange Package (IEP) with the schemas and may also include example instances and style sheets. The IEPD serves as a primary entry point for introducing new data components to NIEM, as well as for reusing existing ones.

4. **Governance processes allow NIEM domains to manage their content and leverage existing standards, while staying within the NIEM model and architectural framework specified in the NIEM Naming and Design Rules (NDR).**
NIEM is nationally driven, and components included for reuse across domains are managed by NIEM governance and processes to ensure cross-domain interoperability. However, it is the operational stakeholders within the domains who define what IEPDs will be developed and exchanged using the NIEM model, architectural framework, and NDR. Each domain will have its own governing body, or authoritative source, to define and harmonize components within the domain and with the NIEM model.

5. **NIEM supports the use of external standards.**
The ability to leverage components from external standards allows NIEM stakeholders to protect their existing investments. There are three ways in which an external component can be used for information exchanges in a NIEM-conforming way. 1) The component can be wrapped in and inserted into a NIEM domain or the NIEM core. Wrapping the component and identifying it with appropriate metadata facilitates search and discovery mechanisms. 2) The component can be translated to NIEM NDR and inserted into a NIEM domain or the NIEM core. 3) The component can be wrapped and included in an IEPD extension schema, where it becomes a candidate for future addition to NIEM.

6. **The NIEM architecture will support a concept of version independence for NIEM domains.**
While the current NIEM release was produced under a single version, the intent of upcoming releases will be to allow domains to version their content independently of one another. Naturally, domains will still be required to conform to the NIEM NDR, identify and maintain versions, and make use of existing NIEM components, when possible, but domains will be allowed to evolve independently within the NIEM framework.

7. **NIEM is requirements-driven.**
NIEM processes such as the IEPD development life cycle capture real-world activities for implementing an information exchange based on NIEM. Data components identified and modeled in a NIEM-conforming way in a NIEM IEPD become candidates for inclusion in the NIEM core or a NIEM domain. Processes guide the review and harmonization of such components, contributing to building a more mature and inclusive model that is firmly grounded in operational requirements.

8. **Developers of conforming NIEM IEPDs can reuse data components from the NIEM core, NIEM domains, and existing external domains and standards to accelerate development.**
The NIEM IEPD architecture supports the capture of extensions used in the IEPD development process such that they can be fed back into NIEM, discovered and leveraged by other stakeholders, used to improve the underlying model and identify targets of overlap for harmonization and, ultimately, lead to consistency of use of components across NIEM IEPDs.

9. **Exchanges modeled in NIEM IEPDs and the systems that implement them are not required to be migrated to each new release of the NIEM model.**
All previous versions of NIEM from the 1.0 release onward will be available, and minor bug fixes will be supported in a compatible manner. Substantive modifications captured in major version changes will be supported with NIEM migration tools to minimize the level of effort as much as possible. The IEPD is the point of interoperability, meaning that it will define which version of NIEM, NIEM domains, and external standards is to be used in a given exchange. Program managers should make the decisions as to which version of NIEM to use in the construction of their IEPDs based on their program timeline and the degree to which the current version of NIEM meets their strategic and tactical program objectives.

10. **Data components are introduced into NIEM through an iterative process.**
The primary mechanism for introducing new data components into NIEM is through the IEPD, where the components begin either as new NIEM-conforming components or valid extensions of existing components in an IEPD extension schema. Once the IEPD has been registered in an appropriate repository, the new components may become candidates for inclusion as NIEM domain components. In some cases, the new components may apply to more than one domain or possibly to all domains, making them candidates for inclusion in the NIEM Common or Universal namespaces.